

CYCLOPENTADIENE

Chemical reference number (CAS): 542-92-7

WHAT IS CYCLOPENTADIENE?

Cyclopentadiene is a manmade chemical. It's either a clear liquid or solid, with a sweet odor like turpentine or camphor. Manufacturers use cyclopentadiene to make resins and other chemicals.

Cyclopentadiene is not commonly found in home-use products. It is found in tobacco smoke and car exhaust. It's also found in exhaust from coal and oil-fueled fires.

When released into the air, cyclopentadiene breaks down to a less toxic chemical within a few hours.

HOW ARE PEOPLE EXPOSED TO CYCLOPENTADIENE?

Breathing: Most people are exposed to cyclopentadiene when they breathe tobacco smoke or air contaminated by exhaust from automobiles or industries. If a home water supply is contaminated, people could inhale the chemical when they cook, do laundry, or bathe.

Drinking/Eating: People may be exposed to cyclopentadiene when they drink contaminated water. People who handle contaminated soil may be exposed when they eat or touch their mouths with dirty hands.

Touching: People may be exposed if they handle the chemical, contaminated soil, or water. If the home water supply is contaminated, people could contact the chemical when they wash or do laundry.

DO STANDARDS EXIST FOR REGULATING CYCLOPENTADIENE?

Water: Currently, there is no state or federal drinking water standard for cyclopentadiene. Until a health-based standard is developed, people should avoid using water that contains any detectable cyclopentadiene for preparing food. If levels of cyclopentadiene are very high in your water, you may also need to avoid washing, bathing or using the water for other purposes. Contact your local public health agency for more information specific to your situation.

Air: No standards exist for the amount of cyclopentadiene allowed in the air of homes. We use a formula to convert workplace limits to suggested home limits. Based on the formula, we recommend levels be no higher than 1.5 parts per million (ppm) of cyclopentadiene in air. Most people can't smell cyclopentadiene until levels reach 1.9 ppm. If you can smell the chemical, the level is too high to be safe.

The Wisconsin Department of Natural Resources regulates the amount of cyclopentadiene that can be released by industries.

WILL EXPOSURE TO CYCLOPENTADIENE RESULT IN HARMFUL HEALTH EFFECTS?

The following symptoms may occur immediately or shortly after exposure to high levels of cyclopentadiene in air:

- Irritation of eyes, nose, and throat
- Irritation of skin
- Temporary changes in liver and kidney functions

The following health effects can occur after several years of exposure to cyclopentadiene:

Cancer: Cyclopentadiene has not been tested for its ability to cause cancer in laboratory animals.

Reproductive Effects: Cyclopentadiene has not been tested for its ability to cause reproductive effects.

Organ Systems: Cyclopentadiene can damage the liver and kidneys. Repeated contact with the chemical can also cause allergic skin rashes.

In general, chemicals affect the same organ systems in all people who are exposed. However, the seriousness of the effects may vary from person to person.

A person's reaction depends on several things, including individual health, heredity, previous exposure to chemicals including medicines, and personal habits such as smoking or drinking.

It is also important to consider the length of exposure to the chemical; the amount of chemical exposure; and whether the chemical was inhaled, touched, or eaten.

CAN A MEDICAL TEST DETERMINE EXPOSURE TO CYCLOPENTADIENE?

There are no common laboratory tests for cyclopentadiene in the body. If you develop symptoms following exposure to cyclopentadiene, or if you suspect that you have been exposed to high levels of this chemical, doctors can use tests of liver and kidney function to check for any damage to these organs.

Seek medical advice if you have any symptoms that you think may be related to chemical exposure.

This fact sheet summarizes information about this chemical and is not a complete listing of all possible effects. It does not refer to work exposure or emergency situations.

FOR MORE INFORMATION

- Poison Control Center, 800-222-1222
- Your local public health agency
- Division of Public Health, BEOH, 1 West Wilson Street, Rm. 150, Madison, WI 53701-2659, (608) 266-1120 or Internet: <http://dhfs.wisconsin.gov/eh>



Prepared by the
Wisconsin Department of Health and Family Services
Division of Public Health, with funds from the
Agency for Toxic Substances and Disease Registry,
Public Health Service,
U.S. Department of Health and Human Services.

(POH 4595 Revised 12/2000)